WHAT IS CLAIMED IS:

1. A measuring instrument, comprising: a body movable relative to a workpiece;

a swinging body swingably supported by the body and having a probe to be in contact with the workpiece; and

a movement sensor for detecting a swinging movement of the swinging body,

wherein the body is movable so that the body is inclined within a predetermined angle range relative to a horizontal surface,

wherein the swinging body is swingably supported so that a centroid position thereof is located on a plane parallel to the horizontal surface including a point where the swinging body is supported by the body when the body is inclined by an angle approximately in the middle of the predetermined angle range.

2. The measuring instrument according to claim 1,

wherein the centroid position of the swinging body is calculated based on a centroid moment calculated in accordance with barycentric coordinates of components of the swinging body with a fulcrum of the swinging body being set as an origin and the mass of the components.

3. The measuring instrument according to claim 2,

wherein the barycentric coordinates of the components of the swinging body are calculated based on three-dimensional data of the components by computer aided design.

4. The measuring instrument according to claim 1,

wherein the swinging body has a measuring force setting means for bringing the probe into contact with the workpiece with a predetermined measuring force, the measuring force setting means being provided on a side opposite to the centroid position of the swinging body relative to the fulcrum supported by the body.

5. The measuring instrument according to claim 4,

wherein the measuring force setting means is a measuring force weight capable of moving toward and away from the fulcrum at which the swinging body is supported by the body.

6. The measuring instrument according to claim 1,

wherein the swinging body has a centroid weight capable of moving in a direction approximately orthogonal to a line connecting the fulcrum supported by the body and a

distal end of the probe,

wherein the centroid position is adjusted by moving the centroid weight.